

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Letters Patent of:
John C. Harvey *et al.*

Patent No.: 7,860,131

Issued: December 28, 2010

For: SIGNAL PROCESSING APPARATUS AND
METHODS

Commissioner for Patents
Office of Patent Publication
Attention: Certificate of Correction Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 C.F.R. §1.322

Dear Sir:

Upon reviewing the above-identified patent, Patentee noted a typographical error that should be corrected.

At claim 1, column 287, line 4, insert --at-- so that line 4 reads, "storing a control signal, which is operative at at least one"

Applicants did not make this error. Claim 1 was originally claim 57. The claim was last amended via an amendment in Applicants' Request for Reconsideration filed March 3, 2003. As seen in Exhibit A, claim 57, as submitted, contained the phrase "at at least one" in the claim's storing step. The Examiner's Amendment issued on September 30, 2010 as part of the Notice of Allowance reflected Applicants' amendments to claim 57. A copy of this mailing is attached as Exhibit B. However, Patent 7,860,131 issued December 28, 2010, failed to reflect the claims as amended by the March 3, 2003 Amendment. The Office has mistakenly deleted the second "at" from the phrase "at at least one."

Accordingly, Patentee believes that the aforementioned errors were caused by the Office, and that no fee is due for the Certificate of Correction. However, if any fees are required, the Director is hereby authorized to charge any fees to our Deposit Account No. 50-4494.

Transmitted herewith is a proposed Certificate of Correction effecting such amendment. Patentee respectfully solicits the granting of the requested Certificate of Correction.

Dated: December 30, 2010

Respectfully submitted,

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Request for Certificate of Correction
Patent No. **7,860,131**
Attorney Docket No. **PMC-003 C90**
Page 3 of 4

EXHIBIT A



#35/11
PATENT
4/18/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : John C. Harvey and
James W. Cuddihy

Serial No. : 08/480,392

Docket No. : 5634.310

Filed : June 7, 1995

For : SIGNAL PROCESSING APPARATUS AND METHODS

Group Art Unit : 2611

Examiner : Bhavesh M. Mehta

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Technology Center 2600

Commissioner for Patents
Washington, D.C. 20231

AMENDMENT AND REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.111

I. AMENDMENT

This Amendment and Request for Reconsideration replies to the Office action mailed September 3, 2002. Applicants respectfully request that the following amendments be entered into the above-captioned application:

Please amend claims 3-7, 20-22, 30-40, 42, 45, 46, 51-53, 55, 57-64, 68, 73, 74, 82-86, and 93 as follows.

Please cancel claims 8-15, 17, 18, 72, and 87-89 without prejudice.

Claims 54 and 56 remain unchanged.

Claims 3-7, 20-22, 30-40, 42, 45, 46, 51-64, 68, 73, 74, 82-86, and 93 are pending.

3. (Twice Amended) A method for storing programming at a programming storage station, said storage station having a storage device capable of storing programming, and an automatic control unit for controlling said storage device to store information, said method comprising the steps of:

storing a control signal operative to store programming;

41 locating an available programming storage space among a plurality of available storage spaces based on said stored control signal operative to store programming; and

storing first programming at said located available programming storage space.

4. (Twice Amended) The method of claim 3, wherein said control signal operative to store programming designates programming required at a future time, said method further comprising the step of

identifying required programming.

5. (Twice Amended) The method of claim 3, wherein said control signal operative to store programming designates programming required at a future time, said method further comprising the step of

identifying programming which is not required.

6. (Twice Amended) The method of claim 3, further comprising the step of comparing information received at said programming storage station to said control signal operative to store programming.

7. (Twice Amended) The method of claim 3, further comprising the steps of:
inputting a portion of a stored signal to said automatic control unit; and
processing said inputted portion to locate said available programming storage space.

H2
20. (Amended) The method of claim 3, wherein said first programming includes an incomplete programming element, and second programming operates to complete said incomplete programming element by processing a class of data, said method further comprising the step of receiving a control signal which designates said incomplete programming element or said class of data.

21. (Amended) The method of claim 20, wherein said class of data designates programming transmitter data, said method further comprising the step of receiving and storing said programming transmitter data.

22. (Amended) The method of claim 20, wherein said class of data designates subscriber data, said method further comprising the step of storing subscriber data.

H3
30. (Amended) The method of claim 3, wherein a control signal causes said automatic control unit to control a peripheral device, said method further comprising the step of receiving and storing said control signal.

H4
31. (Twice Amended) The method of claim 30, wherein said peripheral device comprises a switch operatively connected to said storage station.

H5
32. (Amended) The method of claim 30, wherein said peripheral device comprises a memory operatively connected to said storage station.

33. (Amended) The method of claim 30, wherein said first programming is received in a television signal, said method further comprising the step of

detecting an identifier that identifies a portion of said first programming.

34. (Amended) The method of claim 33, wherein said television signal comprises an analog television signal.

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and
35. (Amended) The method of claim 30, wherein said control signal is detected in a information transmission that contains said first programming, said method further comprising the step of
storing said control signal with said first programming.

36. (Amended) The method of claim 35, wherein said control signal is embedded in said information transmission.

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37. (Twice Amended) A method for storing programming at a storage station, said storage station having a plurality of storage locations each capable of storing at least one of television and radio programming; a transfer device capable of communicating said at least one of television and radio programming to and from each of said plurality of storage locations; and a controller for controlling said plurality of storage locations and said transfer device, said method comprising the steps of:

receiving an information transmission including at least one of television and radio programming;

selecting a storage location;

transferring said received information transmission to said selected storage location;

storing said received information transmission at said selected storage location; and

storing an intermediate generation set in respect of said stored information transmission, said intermediate generation set comprising computer program information that causes an intermediate transmission station apparatus to generate a program instruction set.

38. (Twice Amended) The method of claim 37, wherein said controller is operatively connected to said storage station, said method further comprising the steps of:
communicating said intermediate generation set to said controller; and
modifying said information transmission in accordance with said intermediate generation set.

41b cond.
39. (Twice Amended) The method of claim 38, wherein a signal generator is operatively connected to said storage station and modifies said information transmission by embedding information into said information transmission, said method further comprising the steps of:
controlling said storage station to transfer said information transmission to said signal generator;
generating at least some of said information in accordance with said intermediate generation set; and
communicating said information to said signal generator.

40. (Twice Amended) The method of claim 39, wherein a transmitter is operatively connected to said signal generator, said method further comprising the step of
transmitting said modified information transmission.

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42. (Amended) The method of claim 38, wherein said information transmission is modified by embedding at least one of video and audio into said information transmission.

45. (Twice Amended) The method of claim 37, further comprising the step of embedding said intermediate generation set in said information transmission.

48 46. (Twice Amended) The method of claim 45, wherein said information transmission includes television programming, said intermediate generation set being embedded in said information transmission before said television programming.

49 51. (Twice Amended) A method of storing information at a storage station, said storage station including a storage location capable of storing programming, a receiver for receiving at least audio from a remote transmitter station, a transfer device capable of communicating said programming to and from said storage location, and a processor capable of controlling said storage location and said transfer device, said method comprising the steps of:

receiving an information transmission including programming,

a first portion of said programming to be outputted for a duration of time, only some of said duration of time including a time interval of specific relevance,

a second portion of said programming including audio, at least said second portion of said programming being received from said remote transmitter station;

communicating said received information transmission to said storage location;

storing said first and second portions of said programming at said storage location; and

storing at least one of computer code and data at said storage station, said at least one of computer code and data being operative at an ultimate receiver station to enable said ultimate receiver station to select audio of said second portion and cause an audio output device to output said selected audio of said second portion during said time interval of specific relevance.

52. (Twice Amended) The method of claim 51, further comprising the steps of:

communicating said at least one of said computer code and said data to said processor; and
under control of said processor, modifying said programming in accordance with said at least
one of said computer code and said data.

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amd.
53. (Twice Amended) The method of claim 52, wherein said programming is modified by
embedding information in said programming.

54. (Unchanged) The method of claim 52, wherein said programming is modified by combining
audio into said programming.

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55. (Twice Amended) A method of storing information at a storage station, said storage
station including a storage location capable of storing programming, a receiver for receiving at least
audio from a remote transmitter station, a transfer device capable of communicating said
programming to and from said storage location, and a processor capable of controlling said storage
location and said transfer device, said method comprising the steps of:

receiving an information transmission including said programming,

a first portion of said programming including audio,

a first part of said audio to be outputted at an ultimate receiver station before a
time interval of specific relevance

a second part of said audio to be outputted at said ultimate receiver station
after said time interval of specific relevance,

a second portion of said programming including video, at least said first portion of
said signal being received from said remote transmitter station;

communicating said received information transmission to said storage location;

storing said first and second portions of said programming at said storage location; and

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storing at said storage station at least one processor instruction which is effective to modify
said information transmission for transmission to said ultimate receiver station.

56. (Unchanged) The method of claim 55, wherein said at least one processor instruction is
effective to modify said programming.

57. (Twice Amended) A method of enabling a station of a particular kind to deliver complete
programming, said station including a storage device, and said method comprising the steps of:
storing programming at said storage device, said programming comprising a computer
program and a portion to be completed by accessing prestored data at said station of a particular
kind,

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wherein said computer program is operative to complete said portion when executed at said
station of a particular kind, said execution of said computer program enabling a processor at said
station of a particular kind to select a specific datum from said prestored data and place information,
which results from a processing of said selected datum, into said portion to be completed, thereby
completing said programming; and

storing a control signal, which is operative at at least one particular kind of station, said
control signal operative to cause said execution of said computer program,

whereby said station of a particular kind is enabled to deliver complete programming.

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58. (Amended) The method of claim 57, wherein said prestored data designates programming
transmitter data, said method further comprising the step of
receiving and storing programming transmitter data.

59. (Amended) The method of claim 57, wherein said prestored data designates subscriber
data, said method further comprising the step of storing subscriber data.

60. (Amended) The method of claim 57, wherein said control signal comprises a series or stream of sequentially transmitted control instructions, said method further comprising the step of storing in said control signal two or more control instructions in a specific order with information designating a time period.

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concl. 61. (Amended) The method of claim 60, wherein said series or stream of sequentially transmitted control instructions is to be included in a message stream, said method further comprising the step of storing an instruction which is effective to instruct said processor to process at least one message of said message stream.

62. (Twice Amended) The method of claim 57, wherein said portion to be completed comprises generally applicable information.

413 63. (Amended) The method of claim 62, wherein said generally applicable information is to be included in machine language code.

64. (Twice Amended) The method of claim 62, wherein said generally applicable information includes higher language code and said computer program operates to generate a module including said higher language code.

414 68. (Amended) The method of claim 57, wherein a control signal causes a controller operatively connected to said storage station to control a peripheral device, said method further comprising the step of storing said control signal.

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73. (Amended) The method of claim 57, wherein said storage station is an intermediate transmitter station, said method further comprising the step of transmitting said first programming.

74. (Amended) The method of claim 57, wherein said storage device is an ultimate receiver station.

82. (Twice Amended) A method of enabling a mass medium programming storage device to store and deliver mass medium programming, said storage device comprising a storage location capable of storing said mass medium programming, a transfer device capable of communicating said mass medium programming to and from said storage location, and a processor capable of controlling said transfer device and said storage location to receive, store, and communicate said mass medium programming, comprising the steps of:

416
receiving an information transmission including said mass medium programming, said mass medium programming having an identification datum and a programming element which is to be completed regarding a class of data;

communicating said information transmission to said storage location;

storing said information transmission at said storage location; and

storing at least one of an intermediate generation set and a program instruction set at said mass medium programming storage device, said at least one of an intermediate generation set and a program instruction set including a control signal which designates at least one of said programming element to be completed and said class of data and which is operative to complete said programming element to be completed.

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83. (Amended) The method of claim 82, wherein said class of data designates programming transmitter data, said method further comprising the step of:

storing said programming transmitter data.

84. (Amended) The method of claim 82, wherein said class of data designates subscriber data, said method further comprising the step of:

storing said subscriber data.

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comd.
85. (Amended) The method of claim 82, wherein said control signal comprises sequentially transmitted control instructions, said method further comprising the step of:

embedding in said control signal at least two control instructions in a specific order with information designating a time period.

86. (Amended) The method of claim 85, wherein said sequentially transmitted control instructions comprise a message stream, said method further comprising the step of:

storing an instruction which is effective to instruct said processor to process at least one message of said message stream.

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93. (Amended) The method of claim 82, wherein a control signal causes a controller operatively connected to said storage device to control a peripheral device, said method further comprising the step of:

storing said control signal.

II. REMARKS

Applicants have reviewed the Office action mailed September 3, 2002, and fully address herein the following rejections contained therein.

The Office action begins with Section I that recites a number of issues that are neither rejections of nor objections to the claims of the instant application. Applicants address Section I of

the Office action below, but note that the issues raised are not relevant to the patentability of the claims in this application. For this reason, Section I of the Office action is improper and should therefore be withdrawn in its entirety.

Section I of the Office action is followed by Sections II-V that assert the following rejections of the pending claims.

Claims 51-64, 68, and 72-74 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Claims 3-15, 17, 18, 20-22, 30-40, 42, 45, 46, 51-64, 68, 72-74, 82-89, and 93 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claim 34 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter that was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as allegedly being rendered unpatentable by the publication "Vertical Interval Signal Applications" by Etkin in view of WO 80/02093 to Vikene.

Claims 3-15, 17, 18, 20, 21, 30-40, 42, 45, 46, 51-64, 68, 72-74, 82-89, and 93 stand rejected under 35 U.S.C. § 103(a) as allegedly being rendered unpatentable by Etkin in view Vikene, and further in view of U.S. Patent No. 4,199,791 to Corey and the publication "The Vertical Interval: A General-Purpose Transmission Path" by Anderson.

Applicants reply herein to each ground of rejection presented in the Office action. Applicants respectfully request reconsideration and further examination of the instant application.

A. Response To Section I Of The Office Action.

The Office action begins by identifying a list of 30 "Examples" of issues that have been raised in some of applicants' copending applications. The Examiner alleges that in some cases applicants have "handled and addressed" these issues inconsistently in different applications. The Examiner states that the list of "Examples" will be maintained by the Patent Office "in an attempt to ensure consistency in the way that these issues are handled between applications in the future."

9/03/02 Office action, p. 2.

Applicants respectfully submit that the "Examples" are simply irrelevant to the prosecution of the instant application for a number of reasons. The Patent Office itself has acknowledged that the list of 30 Examples is not relevant to certain applications because applicants have not asserted priority in those applications to the filing date of applicants' 1981 application:

It is examiners position that after a series of interview, it has been mutually agreed upon that the instant application is entitled the earlier priority date of 9/11/87 based on the 07/096,096 application and not the 11/3/81 date based on the 06/317,510 application. Therefore, the written description and the enablement under 112 1st paragraph should be limited to the 1987 specification only. Additionally, the remarks set forth in Paragraph III, items 1-30 [the "Examples"] of the instant office action are carried over from other office actions in similar cases and are presented herein because in the past there have been disagreements between the priority date that the applicants are entitled to. The examiner will withdraw paragraph III from subsequent actions in the instant case application if applicants confirm on record in the next communication that the instant application is entitled to only the 1987 priority date and the citations for claim support will be only provided for the 1987 specification.¹

The Examiner's position that he will withdraw the irrelevant 30 Examples only if "applicants confirm on record in the next communication that the instant application is entitled to only the 1987

¹ This paragraph was included in Office actions in the following applications: 08/487,397 mailed 9/06/02; 08/438,011 mailed 9/06/02; 08/447,496 mailed 9/06/02; and 08/479,215 mailed 9/05/02.

priority date” is improper. Whether or not *a particular claim* is afforded the benefit of an earlier filing date under § 120 simply depends on whether the requirements of § 120 are met *for that claim*. A claim either is or is not entitled to an earlier filing date, and such a determination cannot be made without conducting the appropriate claim-by-claim analysis required by the controlling authorities. Of course, it is applicants’ decision whether or not to invoke § 120 in order to overcome an intervening reference. In the instant application, applicants have not invoked § 120 to avoid any intervening reference. Moreover, applicants have demonstrated specification support below only with respect to the 1987 specification. Accordingly, the 30 Examples should be withdrawn.

Applicants question the relevance of the 30 Examples, as well as applicants’ need to respond to these Examples, because none of the examples forms the basis for any objection to or rejection of a pending claim. See 37 C.F.R. § 1.111 (“In order to be entitled to reconsideration or further examination, the applicant . . . must reply to every ground of objection and rejection in the prior Office action.”). Further, none of the Examples even refers to any claims that are presently pending in the instant application. Accordingly, the 30 Examples simply have no bearing on the prosecution of the claims pending in the instant application, and are therefore improper.

Applicants further question the basis for including the 30 Examples in the instant application and applicants’ need to respond to the Examples, because the vast majority of the Examples have appeared at least once before in other applications and because applicants have already responded to the vast majority of the Examples on the record in their copending applications. For example, all 30 Examples appear in identical form in the 07/17/02 Office action received in application Ser. No. 08/470,571 (“the ‘571 Application”). Additionally, at least 20 of the current Examples previously appeared in the 08/28/01 Office action in the ‘571 Application. Accordingly, applicants, in their 01/28/02 and 01/09/03 Responses filed in the ‘571 Application, have already fully responded on the record to all of the 30 Examples listed in the instant application.

In addition to the identical “Examples” being repeated from other recent Office actions, applicants note that many of the issues discussed in the 30 Examples have been raised by the

Examiner before in slightly different forms in applicants' various copending applications. In addressing such issues, applicants have at all times strived to respond in a consistent manner in all of applicants' copending applications. Accordingly, applicants believe that the Examiner is mistaken in his assertion that applicants have "handled and addressed" the issues raised in the 30 Examples "inconsistently."

The 30 Examples are not relevant to the instant application, and applicants respectfully request that the Examples be withdrawn and that the Examiner acknowledge the lack of relevance of the 30 Examples to the prosecution of the instant application. Notwithstanding applicants' position regarding the lack of relevance of the 30 Examples to the prosecution of the instant case, applicants provide the following responses² to the 30 Examples. Applicants reserve their right to further address any of the 30 Examples if, for example, they are ever raised in the context of an actual rejection or objection.

Examples 1-3

Examples 1-3 address various issues concerning applicants' ability to claim priority to their 1981 application and the proper test for demonstrating priority under 35 U.S.C. § 120. Because applicants have not asserted priority to their 1981 application for any of the pending claims in the instant application, Examples 1-3 are wholly irrelevant to the instant application.

In Example 1, the Examiner discusses prosecution of applicants' copending application Ser. No. 08/470,571. More specifically, the Examiner focuses on the need to first demonstrate written description support in applicants' 1987 specification when claiming priority under § 120. Applicants have not asserted priority under § 120 to the date of their 1981 application for any of the pending claims in the instant application, and applicants have identified detailed written description support

² More detailed responses to many of the Examples appear in, among other places, applicants' 01/28/02 Response, 05/06/02 Response to Interview Summary, and 01/09/03 Response filed in the '571 Application.

in their 1987 specification for each and every pending claim in the instant application in Appendix B. Further, applicants respectfully disagree with the Examiner's characterization of their position regarding priority in their copending applications. Finally, in addition to being totally irrelevant to the instant application, applicants submit that the assertions made by the Examiner in Example 1 are improper in the absence of any priority claim made by applicants under 35 U.S.C. § 120 to their 1981 application for any claim in the instant application.

In Example 2, the Examiner takes issue with applicants' discussion and position regarding the proper test for demonstrating priority under § 120. Again, the Examiner refers to applicants' responses filed in the '571 Application. Although applicants continue to disagree with the Examiner's description and application of the legal test for demonstrating priority under § 120 (for the detailed reasons set forth by applicants, e.g., in their 01/09/03 Response in the '571 Application), the issue of priority under § 120 is simply not an issue in the instant application.

In Example 3, the Examiner further discusses applicants' ability to demonstrate priority under § 120 and their ability to support claims pending in the '571 Application using applicants' 1987 specification. Applicants believe that the issues raised in Example 3 are irrelevant to the instant application and submit that the Examiner has mischaracterized applicants' position regarding their ability to demonstrate written description support in both the 1987 and 1981 specifications for the claims pending in the '571 Application and other applications in which applicants are asserting priority under § 120.

Applicants' positions with respect to the various issues related to applicants' ability to claim priority to the date of their 1981 specification and the proper legal test for demonstrating priority under § 120 has been discussed in detail in applicants' submissions in the '571 Application. Applicants will continue to provide the factual and legal bases that justify their claim of priority to their 1981 application in those copending applications where such claim is appropriate and necessary (i.e., if intervening art is applied and applicants elect to invoke § 120 to overcome such intervening art).

Example 4

In Example 4, the Examiner discusses a claim limitation (i.e., “locally generating” images) relevant to certain claims pending in applicants’ ‘571 Application. Applicants respectfully disagree with the Examiner’s assertion in Example 4 that Teletext decoders locally generate images for output or display in the same manner that is being claimed in certain ones of applicants’ copending applications, and applicants have already addressed the issue of whether the prior art applied by the Examiner teaches local generation of images in the ‘571 Application. If the Examiner bases a rejection of or objection to any claim pending in the instant application on the issues found in Example 4, or asserts that the issues found in Example 4 are in any way relevant to the instant application, applicants will address any such assertions at the appropriate time.

Examples 5 and 27

In Examples 5 and 27, the Examiner discusses the “Teletext prior art” and the inventions disclosed in applicants’ 1987 specification in the context of an Office action and a Response filed in the ‘571 Application. The Examiner asserts in Examples 5 and 27 that applicants’ 1987 “packetized SPAM” structure represents little more than applicants’ own version of a “conventional extended Teletext system.” In Example 27, the Examiner further asserts that certain structures recited in some of applicants’ claims pending in the ‘571 Application (namely, a receiver, a signal detector, a processor, and an output device) are also “found within a conventional CPU/MP/computer implemented Teletext” receiver. These examples are not discussed or applied in the context of any of the claims pending in the instant application and the Examiner does not reject any of the pending claims based on the arguments made in Examples 5 and 27. If and when the Examiner makes rejections of specific pending claims on the basis of issues raised in Examples 5 and 27, applicants will further respond to such a rejection. Notwithstanding the lack of relevance of Examples 5 and 27 to this application, applicants strenuously disagree with the Examiner’s disparaging assertions and characterization of the subject matter disclosed in applicants’ 1987 specification. Finally, applicants

note that they have previously addressed how applicants' claims differ from many "Teletext" prior art references in prior responses filed in copending applications.

Example 6

In Example 6, the Examiner discusses applicants' ability to obtain priority to their 1981 filing date for claiming "computer software." The Examiner discusses this issue with respect to arguments advanced in applicants' '571 Application related to applicants' prior use of the term "programming" in claims pending in the '571 Application. Applicants have fully addressed the issues raised in Example 6 in the '571 Application. The issues raised in Example 6, however, are not relevant to the instant application because applicants have not asserted priority under § 120 to the date of their 1981 application for any of the pending claims in the instant application. In fact, in Example 6, the Examiner acknowledges that applicants' 1987 specification does disclose the downloading of computer software. Notwithstanding the lack of relevance of Example 6 to this application, applicants disagree with the Examiner's position regarding applicants' ability to obtain priority to their 1981 filing date for claims that include the term "programming."

Example 7

In Example 7, the Examiner alleges that Teletext decoders found in the prior art are "signal processors" as the term "signal processor" is used within the context of applicants' claims pending in the '571 Application. Again, the issues raised in Example 7 are not discussed in the context of any claim currently pending in the instant application. Applicants do not understand the relevance of Example 7 to any of the claims currently pending in the instant application and no attempt is made to apply the discussion in Example 7 to the instant claims. Notwithstanding the lack of relevance of Example 7 to this application, applicants respectfully disagree with the Examiner's assertions and characterization of Teletext decoders found in the prior art and the signal processor disclosed by applicants. Applicants submit that the signal processors disclosed in applicants' specifications perform functions that are not disclosed in the cited Teletext prior art references. Finally, applicants

will address these issues if and when an actual rejection is made by the Examiner based on the issues raised in Example 7.

Example 8

In Example 8, the Examiner asserts that it is applicants' position that applicants' claimed/disclosed technology is not "correlated/analogous" to Teletext technology. The Examiner, however, fails to provide any details regarding his position that "conventional Teletext systems" generally are correlated or similar to applicants' claimed technology. Indeed, such generalized "correlations" or "analogies" are wholly irrelevant to the issue of whether or not applicants' claims are patentable. Applicants' position is that none of the specific references, related to Teletext or otherwise, alone or in combination, teach the methods and apparatus claimed by applicants. The Examiner further argues that applicants have previously indicated it is their belief that the scope of many of their pending claims encompasses the "Weather Star" system/receiver technology. First, the question of whether or not a particular system would be covered by a pending claim is wholly irrelevant to the examination of the instant claims, unless such system is prior art. The Examiner has not established that the Weather Star system is prior art. Second, although the Examiner vaguely refers to applicants' "pending amended claims," he makes no reference to a specific application *or a specific claim*. Due to the Examiner's broad treatment of these issues, applicants cannot respond in any meaningful manner to the issues raised in Example 8.

Example 9

In Example 9, the Examiner discusses an issue that arose in the prosecution of the '571 Application regarding whether "digital television signals/programming" was well known in the relevant art at the time that applicants filed their specifications. In their 1/28/02 Response filed in the '571 Application, applicants fully addressed the Examiner's rejections under § 112, second paragraph, of claims with limitations of "digital television." Further, applicants maintain their position stated in the '571 Application regarding the Schwartz et al. reference. Applicants note that there are no

rejections of or objections to any of applicants' pending claims in the instant application based on the issues raised in Example 9, and applicants reserve the right to further respond to the issues raised in Example 9 if any of these assertions are relied on to object to or reject any claim in the future.

Example 10

In Example 10, the Examiner discusses two references of Zaboklicki: DE 2,914,981 and GB 2,016,874. Despite the Examiner's characterization of applicants' arguments regarding these references, applicants maintain that neither Zaboklicki reference anticipates or renders obvious any of applicants' pending claims in the instant application. Applicants have previously addressed issues raised in Example 10 in the '571 Application, and applicants will continue to address in detail any rejection under § 102 or § 103 in which a Zaboklicki reference is applied.

Examples 11, 12, 15 and 16

In Examples 11, 12, 15 and 16, the Examiner discusses applicants' use of the term "programming" in the 1981 and 1987 specifications. More specifically, Examples 11, 12, 15 and 16 assert that applicants cannot claim a 1981 priority date for claims including the term "computer programming," because of an allegedly narrow definition of that term in the 1981 specification. The issues raised in Examples 11, 12, 15 and 16 are only relevant if applicants rely on § 120 to obtain the benefit of their 1981 filing date. As applicants have not claimed priority to their 1981 application for any claims currently pending in this application, the issue is not relevant to the instant application. If and when the Examiner asserts that the issues found in Examples 11, 12, 15 and 16 are relevant to the claims pending in the instant application, applicants will respond at the appropriate time. Finally, applicants have fully addressed the "programming" issues raised in these examples in several prior responses filed in the '571 Application.

Example 13

In Example 13, the Examiner discusses whether or not radio and television arts represent non-analogous arts. The Examiner states that applicants have previously asserted that the radio and

television arts are non-analogous arts. The Examiner's assertions in Example 13 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 13 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim based on specific applied references in the identified arts.

Example 14

In Example 14, the Examiner discusses issues related to a claim recitation (simultaneous and sequential) in the context of two of applicants' copending applications (i.e., the '571 Application and Application Ser. No. 08/469,078. The Examiner's assertions in Example 14 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 14 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Additionally, applicants note that they have fully addressed issues related to the Examiner's concerns regarding "simultaneous and sequential" in their January 28, 2002 Response filed in the '571 Application.

Examples 17-20 and 23-26

Examples 17-20 and 23-26 discuss various issues related to applicants' ability to obtain a priority date based on their 1981 application and the proper legal test to be applied when analyzing an applicants' ability to obtain a priority date under § 120. None of the issues discussed in Examples 17-20 and 23-26 is relevant to the instant application because applicants have not asserted a 1981 priority date for the claims pending in the instant application. Further, applicants have addressed the issues related to priority in detail in their responses filed in the '571 Application and Application Ser. No. 08/487,526.

Example 21

In Example 21, the Examiner describes and compares the technology disclosed by applicants in their 1981 and 1987 specifications and asserts that the technology disclosed in applicants' two specifications is "vastly different." While it is true that the 1987 application includes many enhancements and improvements, applicants maintain that the subject matter disclosed in their 1981 application is also disclosed in the 1987 application. Second, because applicants have not asserted a 1981 priority date for the claims pending in the instant application, applicants' 1981 specification and any comparison between applicants' 1981 and 1987 specifications are not relevant to the instant application. Finally, the issues raised in Example 21 have previously been addressed in the '571 Application. Applicants will continue to provide appropriate factual and legal arguments as to why they are entitled to a 1981 priority date in all cases where it is relevant.

Example 22

In Example 22, the Examiner discusses a perceived difficulty in interpreting terminology in applicants' claims in light of the 1981 and 1987 specifications. More specifically, the Examiner asserts that certain terminology in applicants' claims takes on different interpretations when such terminology is read on different teachings from applicants' 1981 and 1987 disclosures. The alleged "problem" described in Example 22 is simply not applicable to the instant application because applicants have not asserted a priority date based on their 1981 application for any claim pending in the instant application. In the instant application, only the 1987 specification is used to support the pending claims. Accordingly, the issues raised by the Examiner in Example 22 are not relevant to the instant application. Further, applicants have fully addressed Example 22 in the '571 Application.

Example 28

In Example 28, the Examiner discusses a specific claim pending in the '571 Application (claim 56). Specifically, the Examiner questions applicants' written description support for the recitation "interactive ultimate receiver station" previously appearing in claim 56 of the '571 Application. Applicants maintain that both the 1981 and 1987 specifications unquestionably disclose "interactive

receiver stations.” See, e.g., 1981 Specification col. 20, ll. 23-27, and “Local Input” in Figure 6D; 1987 Specification, p. 288, ll. 1-20. The Examiner’s assertions in Example 28 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 28 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Finally, applicants note that they have already fully addressed Example 28 in the ‘571 Application.

Example 29

Example 29 discusses limitations directed to combining images (e.g., where a “portion” of an image is “replaced” by a portion of another image) which are allegedly present in claims in applicants’ ‘571 Application. Applicants maintain that applicants’ specifications broadly teach the combining of images. The Examiner’s assertions in Example 29 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 29 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Further, applicants have already fully addressed the issues raised in Example 29 in the ‘571 Application.

Example 30

In Example 30, the Examiner discusses the publication date of article/reference by Gunn et al. Applicants acknowledge that the Gunn reference is a transcript from a conference in London that took place from March 26-28, 1980. But this information alone does not qualify the reference as prior art (i.e., it was unclear when the paper was published). However, since the mailing of the 7/17/02 Office action in the ‘571 Application, applicants received a copy of the Gunn reference that bears a Massachusetts Institute of Technology Library received stamp dated December 4, 1980. The Examiner also alleges in Example 30 that applicants have previously neglected to provide the Office with information regarding the publication dates of many references. Applicants have diligently

supplied the Office with references as they have become known to applicants. In some instances, applicants were not provided with dates of certain references, so applicants were not able to provide the Office with dates for each and every reference identified on some of applicants' Information Disclosure Statements. Additionally, applicants submit that the discussion in Example 30 is not relevant to the instant application because the Gunn reference is not applied against any claim pending in the instant application.

B. Response To Rejections Under Section 112, Second Paragraph.

Claims 51-64, 68, and 72-74 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Particularly, the Examiner asserts that the excessive use of "at least" and "at least one" terminology in the claims of the instant application causes confusion because it imparts an excessive number of possible permutations to the limitations that use these terms. 9/3/02 Office action, p. 41. Moreover, the Examiner requests clarification regarding particular cited limitations of claims 51 and 55.

Applicants have amended claims to address the Examiner's concerns. For example, applicants have removed a large number of the "at least one" recitations in the pending claims. Moreover, applicants have amended claims 51 and 55 to clarify the antecedent basis of "second portion of programming" and "audio." Applicants respectfully submit that these amendments overcome the rejection under 35 U.S.C. § 112, second paragraph, and request that the Examiner withdraw the rejection.

C. Response To Rejections Under Section 112, First Paragraph.

(i) Response To Written Description Rejection.

The Examiner prefaces his rejections under § 112, first paragraph, by listing a series of quotations from a decision issued in prior litigation pending before the International Trade

Commission (ITC) involving one of applicants' issued patents. In Section IV, the Examiner simply lists several quotations and states that the Examiner "continues to adopt these same positions in regard to the pending amended claims currently at issue." Apparently, the Examiner includes these quotations to support his rejections under § 112, first paragraph. The Examiner, however, fails to provide any discussion or explanation regarding the proper procedural and factual context of these quotes. Placed in an accurate and proper context, the record from the ITC litigation actually supports applicants' position that the pending claims are justified by the instant specification.

Before addressing the specific passages quoted in the Office action, applicants must first provide a procedural overview of the ITC litigation. In the litigation before the ITC, the owner of applicants' issued patents and the assignee of the instant application, Personalized Media Communications L.L.C. (PMC), alleged that certain products imported into the United States infringed several claims of U.S. Patent No. 5,225,277. Following an evidentiary hearing, the ITC administrative law judge, Judge Luckern, issued a decision entitled "Initial and Recommended Determinations" (Initial Determinations) on October 20, 1997. *See In re Certain Digital Satellite Sys. (DSS) Receivers & Components Thereof*, No. 337-TA-392, 1997 WL 696255 (Int'l Trade Comm'n Oct. 20, 1997). In connection with the evidentiary hearing, three separate groups submitted briefs and arguments to Judge Luckern: 1) PMC; 2) the accused infringers (Respondents); and 3) the ITC Staff. Judge Luckern's Initial Determinations made various findings and concluded that: 1) claims 3, 6, 7, 12, 15, 35, and 44 were invalid as indefinite; 2) claims 3, 6, 7, 12, 15, 35, and 44 were invalid as not enabled; 3) claim 7 was invalid as anticipated; and 4) no asserted claim was infringed. Significantly, the Respondents challenged only one claim, claim 44, for lack of written description support. Judge Luckern found that claim 44 was *not invalid* under § 112, first paragraph, for a failure to provide proper written description support. *Thus, no claim asserted in the ITC litigation was held invalid by Judge Luckern under 35 U.S.C. § 112, first paragraph, for failure to provide adequate written description support.*

On December 4, 1997, the ITC issued its Final Determination, which adopted some, but not all, of Judge Luckern's Initial Determinations. Specifically, the ITC's Final Determination adopted Judge Luckern's claim constructions and findings that the asserted claims were indefinite and not infringed. On the other hand, the ITC did not adopt Judge Luckern's other findings concerning, for example, whether the claims were enabled or whether claim 7 was anticipated. On appeal before the Federal Circuit were only those findings by Judge Luckern that the ITC expressly adopted in its Final Determination. The Federal Circuit's opinion: 1) reversed Judge Luckern's and the ITC's determination that the asserted patents claims were invalid for indefiniteness; 2) vacated Judge Luckern's and the ITC's determination that asserted claim 7 was not infringed; and 3) affirmed Judge Luckern's and the ITC's determination that claims 6 and 44 were not infringed. See *Personalized Media Communications, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 48 USPQ2d 1880 (Fed. Cir. 1998). As a result of the Federal Circuit opinion, the case was remanded to the ITC. After the case was remanded to the ITC, PMC withdrew its complaint and the ITC vacated Judge Luckern's Initial Determination with respect to the findings of invalidity for anticipation and lack of enablement. See *In re Certain Digital Satellite Sys. (DSS) Receivers & Components Thereof*, No. 337-TA-392, 2001 WL 535427 (Int'l Trade Comm'n May 13, 1999). Accordingly, the quotes relied upon by the Examiner in the Office action, all of which are from Judge Luckern's discussion of invalidity for lack of enablement, were vacated by the ITC.

As applicants have already noted, with respect to the only claim even challenged under the written description requirement of § 112, Judge Luckern concluded that the claim was *not invalid* on that basis.³ Regarding the first quote, Judge Luckern's belief that the 1987 specification is "difficult to understand as it is dealing with many possible systems," even if true, is not a proper reason for the Examiner to conclude that none of applicants' claims are supported under § 112. Regarding the

³ Additionally, in allowing the claims asserted in the ITC to issue, the PTO understood that those claims were adequately supported under § 112.

second quote, in which Judge Luckern discusses the complainant's identification of written description support for the asserted claims of U.S. Patent No. 5,225,277, what is important is that Judge Luckern did not find that any of the asserted claims were invalid for failure to satisfy the written description requirement of § 112. Finally, the last two quotes identified by the Examiner actually contain statements made by the ITC Staff in opening arguments. The comments advanced by the Staff in the ITC litigation describing "directions to a treasure map" and "ships passing in the night" are attorney arguments advanced during litigation, and such arguments are simply not indicative of applicants' actions before the PTO.

When the Examiner's citations to the ITC record are presented accurately and in their proper substantive and procedural context, the citations do not support the Examiner's position. Indeed, the ITC record is consistent with applicants' position on the written description issue. The statements relied upon by the Examiner are nothing more than dicta concerning a finding by Judge Luckern that was later vacated. Further, even if these findings had not been vacated, the observations by Judge Luckern do not contradict applicants' position that the pending claims are properly supported under § 112, first paragraph.

In Section III, the Examiner rejects all claims under 35 U.S.C. § 112, first paragraph, as containing subject matter that was not sufficiently described in the specification. In making these rejections, however, the Examiner does nothing more than identify specific limitations pending in a given claim and state "it is not clear where the disclosure as originally filed described the recited step/process" There is absolutely no analysis of, reference to, or discussion of any of the teachings found in applicants' specification which relate to the claimed subject matter. Because the Examiner has failed to provide any reason or analysis as to *why* applicants' claims are not sufficiently supported under 35 U.S.C. § 112, first paragraph, the Examiner has failed to meet his burden to sustain such a rejection.

An Examiner has the initial burden of presenting a *prima facie* case of unpatentability by:

“[P]resenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims.” . . . [T]he burden placed on the examiner varies, depending on what the applicant claims. If the applicant claims embodiments of the invention that are completely outside the scope of the specification, then the examiner or Board need only establish this fact to make out a *prima facie* case. If, on the other hand, the specification contains a description of the claimed invention, albeit not *in ipsius verbis* (in the identical words), then the examiner or Board, in order to meet the burden of proof, must provide reasons why one of ordinary skill in the art would not consider the description sufficient. Once the examiner or Board carries the burden of making out a *prima facie* case of unpatentability, “the burden of coming forward with evidence shifts to the applicant.” . . . [to] show that the invention is adequately described to one skilled in the art.

In re Alton, 76 F.3d 1168, 1175 (Fed. Cir. 1996) (citations omitted).

As the *Alton* case makes clear the Examiner’s burden varies in making a valid rejection under § 112, first paragraph. In the Office action, the Examiner has not even met the most lenient burden described in *Alton*. The Examiner does not assert that applicants’ claims or specific limitations in applicants’ claims are completely outside the scope of the specification; the Examiner simply identifies specific claim limitations and requests “clarification.”

Notwithstanding the Examiner’s failure to meet his burden for making a proper rejection of applicants’ pending claims under § 112, first paragraph, applicants have provided a chart (attached as Appendix B) that identifies detailed written description support for each and every limitation of the pending claims. Applicants respectfully submit that the illustrative support identified in Appendix B, together with applicants’ narrative discussion below, demonstrates that the claimed subject matter is described in the specification in such a way as to reasonably convey to one skilled in the art that applicants had possession of the claimed inventions at the time the 1987 application was filed. Applicants wish to note that the support provided below and in Appendix B is illustrative and the claims may be supportable by other/additional teachings of the 1987 specification. Applicants also wish to note that the claims of the instant application should not be construed to be limited based on the support provided.

1) Claim 3 And Claims Dependent Therefrom

Claim 3 as amended sets forth a method for storing programming at a programming storage station comprising the steps of: storing a control signal operative to store programming; locating an available programming storage space among a plurality of available storage spaces based on the control signal; and storing first programming at the located available programming storage space.

Exemplary support for the claimed method is provided in the section entitled "Automating Intermediate Transmission Stations" beginning at page 324. For example, the claimed method is implemented by an Intermediate Transmission Station (ITS), which comprises a central automatic control unit (ACU) (e.g., computer 73) and a storage device (e.g., recorders 76 and/or 78). Spec. Fig. 6 and page 326, ll. 19-20. The ACU determines that certain units of programming should be recorded at a specific location in order for the units of programming to play according to a schedule. Spec. p. 331, l. 17 to p. 332, l. 1. To achieve this, the ACU locates available storage space among a plurality of available storage spaces. Spec. p. 332, ll. 1-24 and p. 333, ll. 10-13. That ACU then stores the programming at the located space. Spec. p. 332, ll. 23-31. This procedure is repeated as necessary. Spec. p. 333, ll. 10-24.

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 3, as shown by the specific citations in Appendix B and the general discussion above.

Claims 4-7, 20-22, and 30-36 depend from claim 3. The support for these claims is based on the support discussed above with respect to claim 3. Claims 4 and 5 set forth one or more features found in Example #8 of the specification. Claims 6, 7, and 30-36 set forth one or more features found in the introductory section of automating ITS operations beginning at page 324. Claims 20-22 set forth one or more features found in Example #9 of the specification. The specific support for the limitations recited in claims 4-7, 20-22, and 30-36 is fully demonstrated in the charts contained in Appendix B.

2) Claim 37 And Claims Dependent Therefrom

Claim 37 sets forth a method for storing programming at a storage station having a plurality of storage locations. Particularly, an information transmission including television or radio programming is received and transferred to and stored at a selected storage location. An intermediate generation set is stored, which comprises computer program information that causes an intermediate transmission station apparatus to generate a program instruction set.

Examples #8 and #9 of the specification provide an example of such a method. *See generally* spec. pages 324-374 and particularly, p. 355, ll. 15-17. The ITS receives at receiver 53 an information transmission (e.g., programming such as spot commercial Q) from a remote distribution station via transponder 23 of a satellite. Spec. p. 343, ll. 26-32 and p. 344, ll. 24-29. The information transmission is transferred from receiver 53 to selected recorder 76 for storage. Spec. p. 344, ll. 4-8. An intermediate generation set (referred to as the "intermediate generation set of Q" at page 365) that corresponds to the information transmission (e.g., program unit Q) is stored at the ITS. Spec. p. 356, l. 9 to p. 357, l. 8. The intermediate generation set comprises computer program instructions that when executed by computer 73 generate a program instruction set. *Id.*

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 37, as shown by the specific citations in Appendix B and the general discussion above.

Claims 39, 40, 42, 45, and 46 depend from claim 37. The support for these claims is based on the support discussed above with respect to claim 37. These claims set forth one or more additional features found in Example #9 of the specification. The specific support for the limitations recited in claims 39, 40, 42, 45, and 46 is fully demonstrated in the charts contained in Appendix B.

3) Claim 51 And Claims Dependent Therefrom

Claim 51 sets forth another method of storing information at a storage station. Particularly, an information transmission, which includes programming, is received at the storage station. The

programming includes two portions, the first of which is to be outputted for a duration of time, only some of the duration time including a time interval of specific relevance. The second portion includes audio received from a remote transmitter station. The received information transmission is communicated to and stored at a storage location within the storage station. The method further includes storing computer code or data, which is operative to enable an ultimate receiver station to select the audio and to cause an audio output device to output the selected audio during the time interval of specific relevance.

Example #9 of the specification provides an example of such a method. However, additional references are made to Examples #8 and #10 as the combined medium programming concepts in each example overlap with and/or build upon those of other examples. *See generally* spec. pages 324-390 and particularly page 355, ll. 15-17. An ITS receives programming such as spot commercial Q, which is 30 seconds in duration, and its corresponding intermediate generation set. Spec. p. 344, ll. 24-30 and page 356, l. 28 to page 357, l. 5. The spot commercial Q (i.e., program unit Q) can be personalized for a particular URS by dividing the 30 second period into at least two intervals, the first of which presents a first portion of audio information applicable to all receivers. *See, for example*, spec. p. 491, ll. 30-35 (an announcer says "... this offer represents a saving to you of over"). The second time interval, or time of specific relevance, is the time at which a second portion of audio, or personalized audio, is presented at the URS. Spec. p. 27, ll. 21-23 (personalized programming is displayed only when it is of specific relevance to the conventional television programming of said combined medium); *see, for example*, spec. p. 492, ll. 27-30 (subscriber of said station can hear said announcer's voice saying: "forty-six").

In order to implement this combined medium programming example as demonstrated above, the program unit Q includes an intermediate generation set comprising generally applicable information, which includes the second portions of audio. Spec. p. 356, l. 28 to p. 357, l. 5 and ll. 24-28. The intermediate generation set instructs computer 73 to generate and store a computer program (e.g., PROGRAM.EXE) and data (e.g., DATA_OF.ITS), which includes the second audio

portion. Spec. p. 365, ll. 7-21 and p. 366, ll. 11-18. The computer program is processed at the URS by microcomputer 205, which selects and outputs selected second audio. Spec. 485, ll. 14-18; p. 488, ll. 21-27; and p. 492, ll. 23-30.

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 51, as shown by the specific citations in Appendix B and the general discussion above.

Claims 52-54 depend from claim 51. The support for these claims is based on the support discussed above with respect to claim 51. These claims set forth one or more features found in Example #10 of the specification. The specific support for the limitations recited in claims 52-54 is fully demonstrated in the charts contained in Appendix B.

4) Claim 55 And Claims Dependent Therefrom

Claim 55 is similar to claim 51 and hence the remarks, *supra*, apply to claim 55 as well. However, instead of featuring the storage of computer code or data, which is operative at an ultimate receiver station to enable the ultimate receiver station to select the audio and to cause an audio output device to output the audio during the time interval of specific relevance, claim 55 features storage of at least one processor instruction which is effective to modify the information transmission for transmission to the ultimate receiver station. Moreover, claim 55 sets forth that a second portion of the programming includes video.

Example #9 further describes that the stored program unit Q includes a processor instruction, or SPAM message (e.g., transmit-data-module-set message (#9)). Spec. p. 369, ll. 3-31. During playback of program unit Q at the ITS, the processor instruction causes the program unit Q to be modified. *Id.* For example, the DATA_OF.ITS is embedded into program unit Q for transmission downstream. *Id.* Moreover, the specification makes clear that program unit Q includes video. *See, for example*, p. 478, ll. 25-26.

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 55, as shown by the specific citations in Appendix B and the general discussion above.

Claim 56 depends from claim 55. The support for this claim is based on the support discussed above with respect to claim 55. This claim sets forth one or more features found in Example #9 of the specification. The specific support for the limitations recited in claim 56 is fully demonstrated in the charts contained in Appendix B.

5) Claim 57 And Claims Dependent Therefrom

Claim 57 sets forth a method of enabling a station of a particular kind to deliver complete programming. A storage device at the station stores programming, which comprises a computer program and a portion to be completed by accessing prestored data at the station. The computer program is operative to complete the portion when executed at a processor at the station. During execution of the computer program, the process selects a specific datum from the prestored data and places information, which results from the processing of the selected datum, into the portion, thereby completing the programming. A control signal, which causes the execution of the computer program, is stored and is operative at one or more particular kinds of station.

At the outset, the instant claim is directed to, *inter alia*, the concept of customizing (e.g., personalizing) programming as generally set forth in claims 51 and 55. Here, the notion of programming completeness is introduced. Completeness refers to the inclusion of information local to a station that enables output of the customized combined medium programming. That is, programming, such as generally applicable information, at a storage station can lack the local data specific to each station. It is not until the station includes its own information based upon its local data, for example, by calculating variables set forth in the programming using local data, that the programming is completed.

Example #9 of the specification illustrates such a method. Particularly, a station such as an ITS stores a generation set, which includes a computer program and an incomplete portion. Spec. p. 356, ll. 9-27 and p. 359, ll. 22-23. The incomplete portion, which is referred to as generally applicable information is made complete by, e.g., local-formula-and-item information specific to the ITS, upon executing the computer program. See p. 357, l. 21 to p. 358, l. 20 (said generally applicable information lacks specific information that is required to complete the generation of a given instance of a generated program instruction set) and p. 358, ll. 1-21. For example, the computer program calculates particular variables, e.g., formula-and-item-of-this-transmission data, using on the local-formula-and-item information. Spec. p. 358, ll. 10-21 and p. 364, ll. 25-31. A control signal such as one or more commands, addressed to computer 73, of "generate-set-information message (#9)" instruct the computer to execute the computer program. Spec. p. 359, l. 3 to p. 360, l. 2.

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 57, as shown by the specific citations in Appendix B and the general discussion above.

Claims 58-64, 68, 73, and 74 depend from claim 57. The support for these claims is based on the support discussed above with respect to claim 57. These claims set forth one or more features found in Example #9 of the specification. The specific support for the limitations recited in claims 58-64, 68, 73, and 74 is fully demonstrated in the charts contained in Appendix B.

6) Claim 82 And Claims Dependent Therefrom

Claim 82 sets forth a method of enabling a mass medium programming storage device to store and deliver mass medium programming comprising the steps of: receiving an information transmission including mass medium programming having an identification datum and a programming element which is to be completed regarding a class of data; communicating the information transmission to the storage location; and storing the information transmission at the

storage location; and storing at least one of an intermediate generation set and a program instruction set at the mass medium programming storage device, the at least one of an intermediate generation set and a program instruction set including a control signal which designates the programming element to be completed and the class of data and which is operative to complete the programming element to be completed.

Claim 82 recites "mass medium programming." Mass medium programming includes television, radio, and print. Spec. p. 1, ll. 27-28.

Much of the support for claim 82 is discussed above with respect to claim 57. In addition, Example #9 further illustrates a program instruction set including a control signal (e.g., any of the instructions of PROGRAM.EXE), which designates a programming element to be completed (e.g., unit Q) or a class of data (e.g., URS specific image information), and which is operative to complete the programming element to be completed. Spec. p. 485, ll. 14-16; p. 486, ll. 20-27; and p. 490, l. 35 to p. 491, l. 6.

Applicants respectfully submit that the specification filed in 1987 demonstrates that applicants possessed the invention defined by claim 82, as shown by the specific citations in Appendix B and the general discussion above.

Claims 83-86 and 93 depend from claim 82. The support for these claims is based on the support discussed above with respect to claims 57 and 82. These claims set forth one or more features found in Example #9 of the specification. The specific support for the limitations recited in claims 83-86 and 93 is fully demonstrated in the charts contained in Appendix B.

(ii) Response To Enablement Rejection.

Claim 34 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter that was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. Particularly, the Examiner contends that the distribution of "digital television" signals is not enabled by the specification. 9/3/02 Office action, p. 55. Claim 34

has been amended to remove the recitation of “digital television” without limiting the generality of the claims from which it depends, in order to expedite prosecution. Nonetheless, applicants disagree with the Examiner’s contention and maintain that the Examiner has failed to establish a prima facie case for lack of enablement.

The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. *United States v. Teletronics, Inc.*, 857 F. 2d 778, 785 (Fed. Cir. 1988). A patent need not teach, and preferably omits, what is well known in the art. M.P.E.P. § 2164.01 (citations omitted). Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. *Id.*

As acknowledged by the Examiner, digital television broadcasting was well known in the art by the time the 1987 application was filed. *See* Office action, p. 56 (“the examiner emphasizes that he does not dispute the fact that broadcasting digitally formatted television signals was in fact well known to those skilled in the art at the time of applicant’s alleged invention”). The secondary references relied upon in the rejection, e.g., “Digital Television Transmission . . .” by Burkhardt et al., U.S. Patent No. 3,755,624 to Sekimoto, and U.S. Patent No. 4,742,543 to Frederickson, each provide evidence supporting such a conclusion. Indeed, Sekimoto demonstrates that digital television was well known even before the filing of applicants’ 1981 application. Applicants specification provides an enabling disclosure of inventive techniques for handling and using digital television signals (*see, e.g.*, Spec. pp. 288-312). Accordingly, the use of the term “digital television” in claim 34 was proper. Applicants expressly reserve the right to use the term “digital television” (or similar terms) in their copending applications, where appropriate, and to provide additional arguments as to why the use of such terminology is proper.

D. Response To § 103 Rejections

1) Claim 3

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Etkin in view of Vikene. Particularly, the Examiner contends that Etkin discloses a process of automatically storing/recording broadcast television programming using auxiliary data embedded in the vertical blanking interval (VBI) of the programming. 9/03/02 Office action, p. 64. The Examiner further explains that "Etkin failed to explain exactly how the auxiliary data that was embedded in the VBI ... was actually used ... to control/automate the recording of the selected programming at the headend locations." *Id.* To cure this deficiency, Vikene is introduced to illustrate that the details missing from Etkin were well known in the art. *Id.* Therefore, the Examiner maintains that "it would have at least been obvious, if not inherent, ... to have provided automated control over Etkin's system in the manner described/illustrated in more detail via Vikene." *Id.* at p. 65.

Alternatively, claim 3 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Etkin in view of Vikene, Corey, and Anderson. Here, the Examiner states that little patentable weight was given to the recited step of "locating an available programming storage space" in the first rejection set forth above because "any system which records TV programming must, e.g., in some inherent way, determine/locate available storage space on which to record the programming." *Id.* at p. 66. Nonetheless, the Examiner addresses this limitation in the present rejection by introducing Corey and Anderson. *Id.* Corey is apparently cited to show that it was well known for an automated program recording system to employ a plurality of processor controlled recording devices each of which is capable of individually recording audio programming on its own tape cartridge. Anderson is apparently cited to show that it was known to have used pluralities of separate video recording devices at receiver stations in order to individually record TV programming. *Id.* The Examiner then concludes that it would have been obvious to one of ordinary

skill in the art to have individually recorded the programs on individual cartridges so as to be ready for the re-broadcast process.

Applicants respectfully disagree with the Examiner's contentions and traverse the two claim 3 rejections on the ground that neither Etkin nor any of the secondary references teach or suggest "locating an available programming storage space among a plurality of available storage spaces based on said stored control signal operative to store programming" as recited in amended claim 3 (emphasis added).

In order to establish a *prima facie* case of obviousness the prior art reference (or references when combined) must teach or suggest all the claim limitations. M.P.E.P. § 2143 (citations omitted). In order to support a § 103 rejection based on a combination of references, the Examiner must provide a sufficient motivation for making the relevant combinations. See M.P.E.P. §§ 2142 and 2143.01; *see also In re Rouffet*, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998) ("When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references."). It is well-settled that an Examiner can "satisfy [the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness] only by showing some *objective teaching* in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) (emphasis added); *see also In re Lee*, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002) ("deficiencies of the cited references cannot be remedied by the Board's general conclusions about what is 'basic knowledge' or 'common sense'"). As with rejections based on the modification of a single reference, "[b]road conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence [of a motivation to combine]'" and thus do not support rejections based on combining references. *In re Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. Without objective evidence of a motivation to combine, the obviousness rejection is the "essence of hindsight" reconstruction, the very "syndrome" that the requirement for such evidence is designed to

combat, and without which the obvious rejection is insufficient as a matter of law. *Id.* at 999, 50 USPQ2d at 1617-18.

There is no showing of any objective teaching to combine Etkin and Vikene. The Office action merely states: "The examiner maintains that it would have at least been obvious, if not inherent, . . . to have provided automated control over the Etkin's system in the manner described/illustrated in more detail via Vikene; i.e. for the auxiliary data described by Etkin to have represented program identification labels of the type described in Vikene." This broad, conclusory statement is not sufficient, under the controlling authorities set forth above, to justify combining the teachings of Etkin and Vikene. There is no showing that either of the applied references, or any other prior art, even remotely suggests such a combination. Applicants respectfully request that the rejection of claim 3 based on this combination be withdrawn for at least this reason.

There is also no showing of any objective teaching to combine Etkin, Vikene, Corey, and Anderson. The Office action merely states: "it would have been obvious for the automated recording apparatus in Etkin's system to have comprises a plurality of recording/storage devices for individually recording each one of the programs on its own tape cartridge," the implementation of which "could obviously be achieved using a plurality of processor controlled recording devices (e.g. as in the case of Corey) or by simply adding additional Vikene-type programming VTRs in a parallel configuration (e.g. as in the case of Anderson)." This broad, conclusory statement is also not sufficient, under the controlling authorities set forth above, to justify combining the teachings of Etkin, Vikene, Corey, and Anderson. There is no showing that any of the applied references, or any other prior art, even remotely suggests such a combination. Applicants respectfully request that the rejection of claim 3 based on this combination be withdrawn for at least this reason.

Claim 3 as amended recites a method for storing programming comprising the steps of "storing a control signal operative to store programming; locating an available programming storage space among a plurality of available storage spaces based on said control signal operative to store programming; and storing first programming at said located available programming storage space."

As discussed above, these recited steps can be supported by the description in the specification teaching automatic organization of prerecorded programming unit storage spaces according to a schedule stored at an ITS. *See generally* spec. p. 331, l. 17 to 333, l. 24.

Etkin teaches the transfer of daily programming logs (application #2, page 30) and the remote operation of video tape recorders (application #8, page 32) via signals embedded in the VBI of a television signal. Etkin does not teach or suggest locating an available storage space based on a prestored control signal operative to store programming nor storing programming at such a located storage space.

Vikene is directed to recording programming using remote control signals, which include coded markings. Vikene does not teach or suggest locating available storage space based on a prestored control signal operative to store programming nor storing programming at such a located storage space.

Corey discloses an audio switching unit for actuating a series of cartridge recorders. Corey lacks any teaching or suggestion of locating an available storage space based on a stored control signal operative to store programming.

Although Corey and Anderson disclose multiple recorders at a single headend, neither teach or suggest locating available storage space based on a prestored control signal operative to store programming nor storing programming at such a located storage space.

In sum, the Examiner has failed to establish a prima facie case of obviousness as Etkin, either taken alone or in combination with the other cited references, does not teach or suggest at least the limitation of claim 3 reciting "locating an available programming storage space based on said stored control signal operative to store programming." Accordingly, applicants submit that the two rejections of claim 3 are improper and respectfully request that they be withdrawn.

2) Claim 8

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Etkin in view of Vikene, Corey, and Anderson. Claim 8 and the claims dependent therefrom have been cancelled without prejudice. Therefore, the instant rejection is moot. Nonetheless, applicants note that the Examiner provides no support whatsoever as to why the cited references should be combined nor identifies the particular references being relied upon with respect to claim 8. Rather, the Examiner asserts in this and the following rejections that certain claim recitations correspond to concepts in the “applied prior art.” However, the Examiner provides no identification as to which particular references are being relied upon for support. Moreover, the Examiner fails to address every limitation contained within the claims. This is not only improper, but prevents applicants from fully addressing the soundness of the rejections and the postulated combination of references.

3) Claims 37 And 82

Claims 37 and 82 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Etkin in view of Vikene, Corey, and Anderson. Particularly, the Examiner asserts that “the ‘intermediate generation set’ ... corresponds to the program broadcast/event schedules of the prior art” Applicants respectfully disagree and traverse this rejection as follows.

The Examiner has failed to establish a prima facie case of obviousness. First, the Examiner has not even addressed all limitations recited in claims 37 and 82. For example, claim 37 recites “computer program information that causes an intermediate transmission station apparatus to generate a program instruction set” and claim 82 recites “storing at least one of an intermediate generation set and a program instruction set at said mass medium programming storage device, said at least one of an intermediate generation set and a program instruction set including a control signal which designates at least one of said programming element to be completed and said class of data and which is operative to complete said programming element to be completed.” The Examiner provides no indication that the cited references teach or suggest these limitations. Moreover, the

Examiner fails to provide any reasoning as to why the cited references should be combined and why such a combination renders the entire scope of claims 37 and 82 obvious.

Nonetheless, applicants maintain that Etkin, either taken alone or in combination with the other cited references, fails to teach or suggest all limitations of claims 37 and 82. With respect to amended claim 37, clearly none of the cited references teach or suggest at least the limitation "storing an intermediate generation set in respect of said stored information transmission, said intermediate generation set comprising computer program information that causes an intermediate transmission station apparatus to generate a program instruction set." Such an intermediate generation set is discussed throughout applicants' specification. For example:

Computer program instructions, of the sort well known in the art, are also inputted to computer, 73, and computer, 73, is caused to execute said instructions. Executing said instructions causes computer, 73, to generate information of a program instruction set. (Hereinafter, an instance of computer program instructions that cause a computer, at an intermediate transmission station, to generate information of a program instruction set is called an "intermediate generation set.")

For example, when executed, one particular intermediate generation set that is inputted to computer, 73, causes computer, 73, in a fashion that is described more fully below, to generate particular program instruction set information of the combined medium programming of program unit Q.

Computer, 73, can receive and be caused to execute intermediate generation set information in any fashion that a computer receives and is caused to execute computer program instructions. Spec. p. 356, ll. 9-27.

Etkin and the other cited references do not teach or suggest storing an intermediate generation set, which causes the generation of a program instruction set.

With respect to amended claim 82, none of the cited references teach or suggest at least the limitation "storing at least one of an intermediate generation set and a program instruction set at said mass medium programming storage device, said at least one of an intermediate generation set and a program instruction set including a control signal which designates at least one of said programming element to be completed and said class of data and which is operative to complete said programming element to be completed." As shown above, Etkin and the other cited references do not teach or suggest storing an intermediate generation set. Moreover, the cited references do not teach or

suggest a control signal which designates an incomplete programming element or class of data and which is operative to complete the programming.

For at least the reasons set forth above, applicants submit that this rejection is improper and respectfully request that the rejection of claims 37 and 82 be withdrawn.

4) Claims 51 And 55

Claims 51 and 55 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Etkin in view of Vikene, Corey, and Anderson. Particularly, the Examiner asserts that "recitations of claim 51 seem only to further define the type of TV signal that is stored and re-broadcast." 9/3/02 Office action, p. 68. Moreover, the Examiner contends that "it would have been obvious for the TV programming being handled by the applied 'prior art' to have been of such a conventional type." *Id.* at p. 69. Applicants respectfully disagree and traverse this rejection as follows.

As with the other rejections, the Examiner has failed to establish a *prima facie* case of obviousness. First, the Examiner has not even addressed all limitations recited in claims 51 and 55. For example, claim 51 recites "receiving an information transmission including programming, a first portion of said programming to be outputted within a duration of time, said duration of time including a time interval of specific relevance, a second portion of said programming including audio, at least said second portion of said programming being received from said remote transmitter station" and "storing at least one of computer code and data at said storage station, said at least one of computer code and data being operative at an ultimate receiver station to enable said ultimate receiver station to select audio of said second portion and cause an audio output device to output said audio of said second portion during said time interval of specific relevance." Claim 55 recites similar limitations. These claims capture the concept of combined medium programming personalized for an ultimate receiver station. *See*, Applicants' § II C, (i), (4) and (5) Remarks, *supra*. The Examiner provides no indication that the cited references teach or suggest these limitations.

Moreover, the Examiner fails to provide any reasoning as to why the cited references should be combined and why such a combination renders the entire scope of claims 51 and 55 obvious.

Nonetheless, applicants maintain that Etkin, either taken alone or in combination with the other cited references, fails to teach or suggest all limitations of claims 51 and 55. Particularly, Etkin and the other cited references do not teach or suggest "receiving an information transmission including programming, a first portion of said programming to be outputted within a duration of time, said duration of time including a time interval of specific relevance, a second portion of said programming including audio, at least said second portion of said programming being received from said remote transmitter station" and "storing at least one of computer code and data at said storage station, said at least one of computer code and data being operative at an ultimate receiver station to enable said ultimate receiver station to select audio of said second portion and cause an audio output device to output said audio of said second portion during said time interval of specific relevance" as claimed in claim 51 or similarly claimed in claim 55. In fact, the cited references do not disclose any features concerning operations at the receiving end, e.g., the subscriber or ultimate end-user.

For at least the reasons set forth above, applicants submit that the rejection is improper and respectfully request that the rejection of claims 51 and 55 be withdrawn.

5) Claim 57

Claim 57 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Etkin in view of Vikene, Corey, and Anderson. This rejection is completely improper as the Examiner provides no analysis whatsoever with respect to any of the particular limitations found in the claim. *See* 9/3/02 Office action, p. 69.

Nonetheless, applicants maintain that Etkin, either taken alone or in combination with the other cited references, fails to teach or suggest all limitations of claim 57. Claim 57 as amended recites:

57. (Twice Amended) A method of enabling a station of a particular kind to deliver complete programming, said station including a storage device, and said

method comprising the steps of:

storing programming at said storage device, said programming comprising a computer program and a portion to be completed by accessing prestored data at said station of a particular kind,

wherein said computer program is operative to complete said portion when executed at said station of a particular kind, said execution of said computer program enabling a processor at said station of a particular kind to select a specific datum from said prestored data and place information, which results from a processing of said selected datum, into said portion to be completed, thereby completing said programming; and

storing a control signal, which is operative at at least one particular kind of station, said control signal operative to cause said execution of said computer program,

whereby said station of a particular kind is enabled to deliver complete programming.

Clearly, neither Etkin nor any of the secondary references teach or suggest at least the limitations “storing programming at said storage device, said programming comprising a computer program and a portion to be completed by accessing prestored data at said station of a particular kind” and “storing a control signal, which is operative at at least one particular kind of station, said control signal operative to cause said execution of said computer program.”

For at least the reasons set forth above, applicants submit that the rejection is improper and respectfully request that the rejection of claim 57 be withdrawn.

6) The Dependent Claims

Claims 4-7, 20, 21, 30-36, 38-40, 42, 45, 46, 52-54, 56, 58-64, 68, 73, 74, 83-86, and 93 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Etkin in view of Vikene, Corey, and Anderson. This rejection is completely improper as the Examiner provides no analysis whatsoever with respect to any of the particular limitations found in these claims. *See* 9/3/02 Office action, p. 69. As discussed above, applicants maintain that independent claims 3, 37, 51, 55, 57, and 82 are patentable. Because claims 4-7, 20, 21, 30-36, 38-40, 42, 45, 46, 52-54, 56, 58-64, 68, 73, 74, 83-86, and 93 depend from one of these independent claims, these dependent

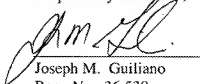
claims are also allowable for at least this reason. Therefore, applicants respectfully request that the Examiner withdraw this rejection.

III. CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Reconsideration and allowance of the instant application are respectfully requested.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,



Joseph M. Guiliano
Reg. No. 36,539
Phone No. 212-596-9000
Fax No. 212-596-9090

Date: March 3, 2003
FISH & NEAVE
1251 Avenue of the Americas
New York, New York 10020

EXHIBIT B



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER, P.O. Box 12, S.Y.
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Alexandria, Virginia 22303-1450
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NOTICE OF ALLOWANCE AND FEE(S) DUE

7/8/13

7/5/0

06/30/2010

GOODWIN PROCTER LLP
901 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20001

EXAMINER

MOORE JR, MICHAEL J

ART UNIT

PAPER NUMBER

2067

DATE MAILED: 09/30/2010

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 08/480,392 | 06/07/1995 | JOHN C. HARVEY | 5634.310 | 9265 |

TITLE OF INVENTION: SIGNAL PROCESSING APPARATUS AND METHODS

| APPL. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$0 | \$0 | \$1510 | 12/30/2010 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
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INSTRUCTIONS: This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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76813 75/0 06/30/2010
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901 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20001

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

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|--------------------|
| (Depositor's name) |
| (Signature) |
| (Date) |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 08/480,392 | 06/07/1995 | JOHN C. HARVEY | 5634.310 | 9265 |

TITLE OF INVENTION: SIGNAL PROCESSING APPARATUS AND METHODS

| APPL. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEES DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|----------------|------------|
| nonprovisional | NO | \$1510 | \$0 | \$0 | \$1510 | 12/30/2010 |

| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|---------------------|----------|----------------|
| MOORE JR, MICHAEL J | 2467 | 725-135000 |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB-122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB-122, Rev. 03-02 or more recent) attached. **Use of a Customer Number is required.**

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(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

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3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THIS PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

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☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed
☐ Payment by credit card. Form PTO-2018 is attached
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above):

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2)

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.**

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

08/480,392

06/07/1995

JOHN C. HARVEY

5634,310

9205

76/813

75/0

06/30/2010

GOODWIN PROCTER LLP
901 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20001

EXAMINER

MOORE JR, MICHAEL J

ART UNIT

PAPER NUMBER

2367

DATE MAILED: 09/30/2010

Determination of Patent Term Extension or Adjustment under 35 U.S.C. 154 (b) (application filed prior to June 8, 1995)

This patent application was filed prior to June 8, 1995, thus no Patent Term Extension or Adjustment applies.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability**Application No.**

08/480,392

Examiner

MICHAEL J. MOORE, JR.

Applicant(s)

HARVEY ET AL.

Art Unit

2467

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Examiner initiated interview on 9/14/10.
2. ☒ The allowed claim(s) is/are 57-64,66,73 and 74 (renumbered 1-11, respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

/Michael J. Moore, Jr./
Primary Examiner, Art Unit 2467

Administrative Requirement

A double patenting administrative requirement is not being required by Examiner in the instant application since Examiner has independently conducted a double patenting analysis of the claims in the instant application.

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 5/5/03, 3/14/03, 6/18/02, 3/19/02, 5/11/01, 4/7/97, 4/17/96, 2/6/96, 12/22/95, 12/11/95, and 12/6/95 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements have been considered by the examiner.

It is noted that for each foreign document and NPL document, listed on the respective PTO-1449 forms filed in the instant application, with no date information a "no date" annotation has been assigned by the examiner to each as the date information was not readily obtainable.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an email communication from Carl L. Benson (Reg. No. 38,378) on 9/21/10.

The application has been amended as follows:

In the claims:

1-56. (Cancelled)

57. (Previously Presented) A method of enabling a station of a particular kind to deliver complete programming, said station including a storage device, and said method comprising the steps of:

storing programming at said storage device, said programming comprising a computer program and a portion to be completed by accessing prestored data at said station of a particular kind,

wherein said computer program is operative to complete said portion when executed at said station of a particular kind, said execution of said computer program enabling a processor at said station of a particular kind to select a specific datum from said prestored data and place information, which results from a processing of said selected datum, into said portion to be completed, thereby completing said programming; and

storing a control signal, which is operative at at least one particular kind of station, said control signal operative to cause said execution of said computer program,

whereby said station of a particular kind is enabled to deliver complete programming.

58. (Previously Presented) The method of claim 57, wherein said prestored data designates programming transmitter data, said method further comprising the step of

receiving and storing programming transmitter data.

59. (Previously Presented) The method of claim 57, wherein said prestored data designates subscriber data, said method further comprising the step of storing subscriber data.

60. (Previously Presented) The method of claim 57, wherein said control signal comprises a series or stream of sequentially transmitted control instructions, said method further comprising the step of

storing in said control signal two or more control instructions in a specific order with information designating a time period.

61. (Previously Presented) The method of claim 60, wherein said series or stream of sequentially transmitted control instructions is to be included in a message stream, said method further comprising the step of

storing an instruction which is effective to instruct said processor to process at least one message of said message stream.

62. (Previously Presented) The method of claim 57, wherein said portion to be completed comprises generally applicable information.

63. (Previously Presented) The method of claim 62, wherein said generally applicable information is to be included in machine language code.

64. (Previously Presented) The method of claim 62, wherein said generally applicable information includes higher language code and said computer program operates to generate a module including said higher language code.

65-67. (Cancelled)

68. (Previously Presented) The method of claim 57, wherein a control signal causes a controller operatively connected to said storage station to control a peripheral device, said method further comprising the step of
storing said control signal.

69-72. (Cancelled)

73. (Previously Presented) The method of claim 57, wherein said storage station is an intermediate transmitter station, said method further comprising the step of transmitting said first programming.

74. (Previously Presented) The method of claim 57, wherein said storage device is an ultimate receiver station.

82-93. (Cancelled)

Allowable Subject Matter

3. Claims **57-64, 68, 73, and 74** (*renumbered 1-11, respectively*) are allowed.
4. The following is an examiner's statement of reasons for allowance:

Regarding claim **57**, the closest prior art of record, *Yanagimachi et al.* (U.S. 3,936,595) (*hereinafter Yanagimachi*), teaches a method for controlling the communication of programming signals at a receiver station, where a programming stream is received at a receiver station of Figure 14 that contains a plurality of control codes as spoken of on column 16, lines 22-40.

Yanagimachi as well as the other prior art of record fail to teach:

"storing programming at said storage device, said programming comprising a computer program and a portion to be completed by accessing prestored data at said station of a particular kind,

Wherein said computer program is operative to complete said portion when executed at said station of a particular kind, said execution of said computer program enabling a processor at said station of a particular kind to select a specific datum from said prestored data and place information, which results from a processing of said

selected datum, into said portion to be completed, thereby completing said programming; and

storing a control signal, which is operative at at least one particular kind of station, said control signal operative to cause said execution of said computer program"
in combination with the other limitations of claim 57.

Claims **58-64, 68, 73, and 74** are dependent upon claim **57** and are thus also allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. MOORE, JR., whose telephone number is (571)272-3168. The examiner can normally be reached on Monday-Friday (7:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J. Moore, Jr./
Primary Examiner, Art Unit 2467

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,860,131
APPLICATION NO. : 08/480,392
ISSUE DATE : December 28, 2010
INVENTOR(S) : John C. Harvey, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

At claim 1, column 287, line 4, insert --at-- so that line 4 reads, "storing a control signal, which is operative at at least one"

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Goodwin Procter LLP
901 New York Avenue, NW
Washington, DC 20001

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the PTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1-2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.